Space Weather Forecast

Issued on Wednesday, 06 March 2024 at 01:28 Local

This forecast provides a four day assessment of space weather events. The probabilities stated below are for reaching or exceeding the given levels. For more information about space weather impacts please see the Met Office Space Weather Scales https://www.metoffice.gov.uk/weather/learn-about/space-weather/uk-scales

---

The planned NOAA SWPC data outage on 6th March between 1600 UTC and 2200 UTC has been postponed until further notice. This was due to impact most of our observational data feeds and some models.
https://www.swpc.noaa.gov/news/postponement-planned-network-outage

Space Weather Forecast Headline: Chance of isolated Moderate flare throughout. Slight chance of G1/Minor Storm conditions on 07 and 08 March.

Analysis of Space Weather Activity over past 24 hours

Solar Activity: Low, with Common class flares continuing, the largest of these from two small regions close to the southwest limb. There are 7 sunspot regions on the visible disc, with the largest region close to the northwest limb. The remaining regions are either weak or stable. No further Earth-directed Coronal Mass Ejections (CMEs) were observed during this period.

Solar Wind / Geomagnetic Activity: Solar winds have been at slightly elevated speeds following a CME arrival on 03 March. Total magnetic field strength has weakened from near moderate to weak levels, with the north-south component of the magnetic field only varying weakly. Resultant geomagnetic activity was Quiet to Unsettled.

Energetic Particles / Solar Radiation: The count rate of energetic particles (high energy protons) remained at background levels with no radiation storms observed.

Four-Day Space Weather Forecast Summary

Solar Activity: Low with a chance of Moderate activity, mainly due to the region in the far western hemisphere, if there is an isolated Moderate class flare.

Solar Wind / Geomagnetic Activity: A CME which left the Sun on 03 March may glance the Earth on 07 March, with low confidence. A fast solar wind is also forecast to connect with the Earth, either on 07 March, but more likely on 08 March, with possible elevated levels of solar wind. Geomagnetic activity is expected to be Quiet to Unsettled through 06 March. This may then reach Active levels through 07 and 08 March, with a slight chance of G1/Minor Storms from either the CME or fast solar wind connection.

Energetic Particles / Solar Radiation: The count rate of energetic particles (high energy protons) is expected to persist at background levels.

Issued by Met Office Space Weather Advisor, Tel: +44 (0) 330 135 4254 Email: moswoc@metoffice.gov.uk

© Crown Copyright 2024. All Rights Reserved.

Space Weather Forecast

Geomagnetic Storms:

Geo-Magnetic Storm Probability (Exceedance)	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Minor or Moderate	G1 to G2	No	1	10	20	5
Strong	G3	No	1	1	1	1
Severe	G4	No	1	1	1	1
Extreme	G5	No	1	1	1	1

Radio Blackouts - X Ray Flares:

X Ray Flares Probability	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Active	R1-R2 M Class	No	20	20	30	30
Very Active	R3 to R5 X	No	1	1	1	1

Solar Radiation Storms - (High Energy Protons):

Radiation Storms Probability (Exceedance)	Level (cm^{-2} sr^{-1} s^{-1})	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Active	≥ S1	No	1	1	1	5
Very Active	≥ S3 *	No	1	1	1	1
* S3 ≥ 10 MeV ≥ 1000 pfu and / or ≥ 50 MeV ≥ 10 pfu. (pfu = $cm^{-2}sr^{-1}s^{-1}$)						

Issued by Met Office Space Weather Advisor, Tel: +44 (0) 330 135 4254 Email: moswoc@metoffice.gov.uk

© Crown Copyright 2024. All Rights Reserved.